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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,848	03/23/2001	Charlotte Johansen	4814.214-US	5761

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NOVOZYMES NORTH AMERICA, INC.
500 FIFTH AVENUE
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NEW YORK, NY 10110

EXAMINER

PROUTY, REBECCA E

ART UNIT	PAPER NUMBER
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1652

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/815,848

Applicant(s)

JOHANSEN, CHARLOTTE

Examiner

Rebecca E. Prouty

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 14 June 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☒ A Notice of Appeal was filed on 14 June 2004. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☒ Applicant's reply has overcome the following rejection(s): rejection under 112, 2nd paragraph.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: none.Claim(s) objected to: none.Claim(s) rejected: 31-37,41,42,46,48,49 and 51.Claim(s) withdrawn from consideration: 38-40,43-45,47,50 and 52.

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____

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Applicants argue that the rejection under 112, 1st paragraph for lack of sufficient written description should be withdrawn as specification describes a DNA sequence encoding a *Coprinus* peroxidase and a skilled artisan would appreciate that other *Coprinus* peroxidases would have homologous amino acid sequences and that the Office has provided no evidence that *Coprinus* peroxidases are not structurally similar. This is not persuasive because as stated previously, the occurrence of multiple different species of an enzyme with unrelated or only low structural similarity to each other within an organism is frequent, particularly when the activity is as broad as the term peroxidase which encompasses multiple different activities. It should be noted that searching the Enzyme Nomenclature web site (<http://us.expasy.org/enzyme>) shows that there are 13 different enzyme activities that are classed as peroxidases (i.e., EC 1.11.1 oxidoreductases which act on a peroxide as an acceptor) and 403 different Swiss-Prot entries within this group (i.e., peroxidases with known sequences) in which it is clear that many organisms encode multiple different enzymes. Looking only at the **known** sequences enzymes within the EC 1.11.1.7 classification (within which the *Coprinus* peroxidase disclosed by applicants falls) shows that several organisms have multiple

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different enzymes. As such the likelihood that *Coprinus* encodes other peroxidases is high. Applicants claims have in no way limited the scope of enzymes encompassed to those which are structurally related to the disclosed enzyme.

The 103 rejection is maintained for the reasons of record. In response to the examiner's statements in the final rejection applicants state "A footnote to Table 4 states that the lactoperoxidase system was effective for maximum 70 hours. The definition of MIC require(s) an inhibition of at least 100 hours. Based on the description of the results, applicants submit that this phrase should be interpreted to mean that the haloperoxidase system was "active" for 70 hours. It does not mean that the peroxidase system was effective for killing or inhibiting microorganism." There is absolutely no support for applicants position in the Johansen reference at all as the term "effective" is consistently used in this example to mean the ability of the compound to kill or inhibit the microorganism. Furthermore, applicants should note that as the claims recite use of a composition **comprising** a peroxidase, use of a composition including protamine and a peroxidase system as taught by Johansen et al. to be synergistically effective would

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have been obvious to one of skill in the art and is included within the scope of applicants claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rebecca Prouty, Ph.D. whose telephone number is (571) 272-0937. The examiner can normally be reached on Monday-Friday from 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, can be reached at (571) 272-0928. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1600.



Rebecca Prouty
Primary Examiner
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